UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,360	07/23/2003	Eugene A. Roylance	200309697-1	1222

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EXAMINER
HUFFMAN, JULIAN D

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/626,360	ROYLANCE ET AL.
	Examiner	Art Unit	
	Julian D. Huffman	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _13 December 2004_.
2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-22_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on _23 July 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
   1.☐ Certified copies of the priority documents have been received.
   2.☐ Certified copies of the priority documents have been received in Application No. _____.
   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _12/13/04_.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office

action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since

this application is eligible for continued examination under 37 CFR 1.114, and the fee

set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has

been reopened pursuant to 37 CFR 1.114.

Claim Objections

2.   Claims 11, 12 and 22 are objected to because of the following informalities:

In claim 11, line 3, it is respectfully suggested that the word "integrates" be

changed to "integrated".

In claim 12, line 3, it is respectfully suggested that "the step of" be inserted before

the word "implementing".

In claim 22, default image enhancement data is claimed, however, the claim

does not state where the data is stored. Additionally, it is respectfully suggested that the

language "otherwise" be replaced with "and if the image enhancement data is not

present, the execution logic is capable of".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-6 and 10-21 are rejected under 35 U.S.C. 102(b) as being anticipated

by Kobayashi et al. (U.S. 6,070,022).

Kobayashi et al., here-after "K", generally discloses an electrophotographic

printer with a toner cartridge that has a memory. The memory stores a count of a

number of sheets printed, which is periodically updated by the device CPU. The

memory also stores "sensitivity information" in a table which relates the number of prints

to the effect the number of prints has on the image. Based on the sensitivity information

and the count stored in the memory, the CPU adjusts baseline development bias

voltages to provide optimum prints results throughout the life of the cartridge (column 9,

line 22-column 10, line 56).

With regards to claim 1, K discloses a computer readable medium (10) integrated

into a removable cartridge (100) for an image forming device, the medium being

programmed with a plurality of image enhancement data sets (table with entry sets

relating number of prints to bias voltage, column 10, lines 40-56) and data set selection

criteria for selecting from among the image enhancement data sets (the accumulated

print number is used as criteria to select an image enhancement data set from among

the image enhancement data sets, column 9, lines 54-65).

With regards to claim 2, K discloses that the image enhancement data includes a condition (print number) associated with data identifying an image enhancement technique and a parameter for implementing the image enhancement technique (the bias voltage stored provides the parameter for implementing the image enhancement technique).

With regards to claim 3, K discloses that the image enhancement data includes a condition (print number) associated with a parameter (bias voltage) for implementing an image enhancement technique.

With regards to claim 4, the removable cartridge includes a printing component (fig. 1, drum 1), and the medium is formatted to store a state variable (accumulated print number) reflecting a state of the printing component and wherein the data set selection criteria represents electronic data that can be processed with the state variable to select from among the image enhancement data sets (column 10, lines 40-56).

With regards to claim 5, K discloses a computer readable medium (10) integrated into a removable cartridge (100) that includes a printing component (1) for an image forming device, the medium being formatted to store a state variable reflecting a state of the printing component (accumulated number of prints, column 9, lines 54-65 and column 10, lines 40-56) and programmed with a plurality of image enhancement data sets (table stores data relating the accumulated print number to the bias voltage, column 10, lines 40-56) and data set selection criteria that can be processed with the state variable to select from among the image enhancement data sets (the

accumulated print number is used to relate the wear of the device with the change in bias voltage required to maintain image quality).

With regards to claims 6 and 10, K discloses a removable cartridge for an image forming device, comprising:

a printing component (1) that can be utilized by the image forming device to assist in producing a printed image; and

a memory (10) formatted to store a state variable (accumulated number of prints) reflecting a state of the printing component and programmed with a plurality of image enhancement data sets (table relating accumulated print number to bias voltage, column 10, lines 40-56) and data set selection criteria for selecting from among the image enhancement data sets (the accumulated print number is used to relate the wear of the device with the change in bias voltage required to maintain image quality) .

With regards to claim 11, K discloses an image enhancement method, comprising:

selecting an image enhancement data set from a plurality of image enhancement data sets contained in a memory (10) integrates (read integrated) into a removable cartridge for an image forming device (column 10, lines 40-56); and

implementing an image enhancement technique according to the selected image enhancement data set (column 10, lines 65-67).

With regards to claim 12, K discloses that the selected image enhancement data set includes data identifying the image enhancement technique (the data stored in the table identifies the bias voltage) and implementing comprises implementing the image

enhancement technique identified by the image enhancement data set (column 10, lines 65-67).

With regards to claim 13, K discloses that the selected image enhancement data set includes a parameter (accumulated print number) and implementing comprises implementing the image enhancement technique according to the parameter (the accumulated print number is used to select an image enhancement technique).

With regards to claim 14, K discloses obtaining a state variable reflecting a state of a printing component (print number) and wherein selecting comprises selecting an image enhancement data set according to the state variable (column 10, lines 40-56).

With regards to claim 15, K discloses that selecting comprises processing data set selection criteria to select the image enhancement data set from among the plurality of image enhancement data sets (the accumulated print number is used to relate the wear of the device with the change in bias voltage required to maintain image quality).

With regards to claim 16, K discloses obtaining a state variable reflecting a state of a printing component (print number) and wherein selecting comprises processing data set selection criteria with the state variable to select the image enhancement data set from among the plurality of image enhancement data sets (column 10, lines 40-56).

With regards to claim 17, K discloses a computer readable medium (CPU 20 stores programs and controls device) having instructions for:

selecting an image enhancement data set from a plurality of image enhancement

data sets contained in a memory integrated into a removable cartridge for an image

forming device (column 10, lines 40-56); and

implementing an image enhancement technique identified by the selected

image enhancement data set (column 10, lines 65-67).

With regards to claim 18, K discloses that the selected image enhancement data

set includes a parameter (print number) and the instructions for implementing include

instructions for implementing the image enhancement technique according to the

parameter (column 10, lines 65-67).

With regards to claim 19, K discloses that the medium has further instructions for

obtaining a state variable reflecting a state of a printing component (column 9, lines 54-

65) and wherein the instructions for selecting include instructions for selecting a image

enhancement data set according to the state variable (column 10, lines 40-56).

With regards to claim 20, the instructions for selecting include instructions for

processing data set selection criteria to select the image enhancement data set from

among the plurality of image enhancement data sets (column 10, lines 40-56).

With regards to claim 21, K discloses further instructions for obtaining a state

variable (print number) reflecting a state of a printing component and wherein the

instructions for selecting include instructions for processing data set selection criteria

with the state variable to select the image enhancement data set from among the

plurality of image enhancement data sets (column 10, lines 65-67).

5.   Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Hilton et al.

(U.S. 6,158,837).

With regards to claim 22, Hilton et al. discloses an image enhancement system

for an image forming device, comprising:

default image enhancement data (column 9, lines 61-67), and execution logic

capable of determining if cartridge image enhancement data is present and

implementing the cartridge image enhancement data, otherwise implementing the

default image enhancement data (column 9 line 39-column 10, line 10, figs. 6-9).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kobayashi et al. in view of Yoshizaki et al. (U.S. 2002/0021906 A1).

Kobayashi et al. discloses everything claimed, as clearly discussed above, with

the exception of the removable cartridge storing toner.

Yoshizaki et al. discloses plural color removable cartridges each with a drum,

charging unit, exposing unit, developer, cleaner, memory and toner reservoir (0115).

It would have been obvious to one having ordinary skill in the art at the time of
the invention to replace the separate toner and developer elements of Kobayashi et al.
with the integrated elements of Yoshizaki et al. The reason for performing the
modification would have been to provide a process cartridge with facilitated production
(section 0024).

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Julian D. Huffman whose telephone number is (571)
272-2147. The examiner can normally be reached on 9:30a.m.-6:00p.m. Monday-
Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number
for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

JH
10 March 2005

K. FEGGINS
PRIMARY EXAMINER